



UNITED STATES
DEPARTMENT OF THE INTERIOR

FISH AND WILDLIFE SERVICE

Medicine Lake National Wildlife Refuge

Medicine Lake, Montana

May 5, 1955

WATER MANAGEMENT PLAN

1955

GENERAL

Water conditions were again favorable in 1954, with a total precipitation of 18.28 inches, which neared the all-time record of 19.08 inches for 1953. Since the heaviest amounts came during the fall months, the beginning of winter found the ground well saturated and water levels high in all impoundments. At no time during the year were the levels much below the approved figures.

During the winter months there was a rather light snowfall, but a fairly heavy rain in mid January gave the snow covering a high water content. When melting started in March the frozen ground could not absorb much of the resulting water and the run-off was quite heavy.

In this area, the heaviest run-off came from the east when Sand and Cottonwood Creeks poured water and ice into the refuge, damaging roads and fences to a considerable extent. At the same time, Wolf Creek carried flood water into the Big Muddy Creek from the west, and caused water to flow northward for several days through the spillway and control gates in our No. 1 Structure. When the flow coming down the Big Muddy met this northward-bound floodwater a few miles north of the town of Medicine Lake, a real pile up accrued which resulted in the highest flood water levels in many years at the town of Reserve.

At the Homestead Unit, water poured over the new spillway from the flooding Big Muddy Creek and quickly filled the Homestead Lakes which had been drained during the winter in an attempt to freeze out the carp and other rough fish.

As usual, the flood waters have been subsiding very slowly due to the very slight drainage afforded by this flat valley. Even though the control gates of the No. 4 Structure at the lower end of Medicine Lake have been wide open since early March, water is still standing in the Headquarters boat house and is still above the top of the gauge at No. 4 Structure.

The ice break-up in Medicine Lake came on the night of April 10, after the flood crest had passed. High winds have been common all spring.



UNITED STATES
DEPARTMENT OF THE INTERIOR
FISH AND WILDLIFE SERVICE
Medicine Lake National Wildlife Refuge
Medicine Lake, Montana

1916

We are again recommending the same proposed maximum water levels as approved for 1953 and 1954, since these levels seem to best fit the need of vegetation and waterfowl. The proposed levels are shown below.

PROPOSED MAXIMUM WATER LEVELS FOR 1955

	<u>Spill Level</u>	<u>Present Level</u>	<u>Proposed Max. Level</u>
Katy's Lake	No Spillway	1954.56	1953.00
No. 4 (Med. Lake)	1943.02	1943.46	1943.00
No. 6 (Homestead)	1937.85	1938.70	1937.85
No. 10	1945.00	1942.94	1945.00
No. 11	1952.54	1952.46	1952.54
No. 12	1955.93	1956.54	1954.00

With the adoption of the new Gauge Record Reading report forms, present gauges will be reset. We would like very much to have the gauges checked by the Engineering Branch the first time any of them are in this locality.

Elmo G. Adams
Elmo G. Adams
Refuge Manager